

# 2555-A 16-Channel Analog Input Module



## Description

The 2555-A is a high-speed 16-channel differential analog input module designed to be compatible with the CTI 2500 Series and Simatic® 505 I/O base. The 2555-A translates analog input signals into an equivalent digital word.

## Features

- Simatic® 505 I/O base format
- 1500 VDC channel-to-PLC backplane isolation
- 14 Bits resolution Unipolar, 13 Bits + Sign Bipolar
- Fast 5.9 mSec update time
- No external power supply required for module
- No external current resistor required
- Microprocessor self-diagnostics
- Supports Immediate I/O

## Specifications

### Input Channels:

16 differential analog input channels  
140 VRMS channel-to-channel CMR

### Signal Range:

Unipolar: 0 to 5 VDC, 0 to 10 VDC,  
or 0 to 20 mA

Bipolar: -5 to +5VDC, -10 to +10VDC,  
or -20 to +20 mA

Update Time: 5.9 mSec no filtering

8.2 mSec digital filtering enabled

Filtering Time Constant: 80 mSec

### DC Input Resistance:

Voltage Mode: 680K $\Omega$

Current Mode: 250 $\Omega$

Repeatability: 0.008%

### Accuracy:

Voltage Mode: 0.057% of full scale @ 25°C

Current Mode: 0.2% of full scale @ 25°C

### Resolution:

Unipolar:

14 bit plus sign

0-5 VDC range = 0.3125 mV/step

0-10 VDC range = 0.625 mV/step

0-20 mA range = 1.22  $\mu$ A/step

Bipolar:

13 bit plus sign

+5 to -5 VDC range = 0.625 mV/step

+10 to -10 VDC range = 1.25mV/step

### Common Mode Rejection:

>86 db @ 60Hz (digital filtering disabled)

### Normal Mode Rejection:

>45 db @ 60 Hz (digital filtering enabled)

Connector: Removable

Wire Gauge: 14-22 AWG

Backplane Power: 5.0 Watts

Module Size: Single-wide

Input Overrange Protection: 500 V

Isolation: 1500 VDC channel-to-PLC

Operating Temperature: 0° to 60°C (32° to 140°F)

Storage Temperature: -40° to 85°C (-40° to 185°F)

Relative Humidity: 5% to 95% (non-condensing)

Agency Approvals: UL, UL-C, FM (Class I, Div 2)

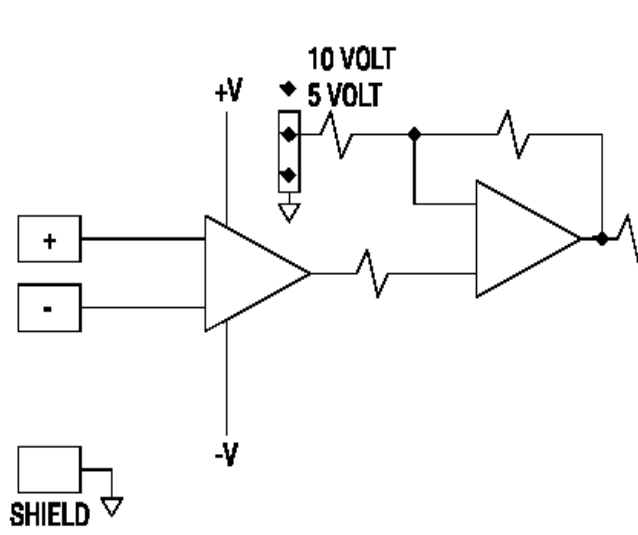
Shipping Weight: 1.5 lbs (0.68 Kg)



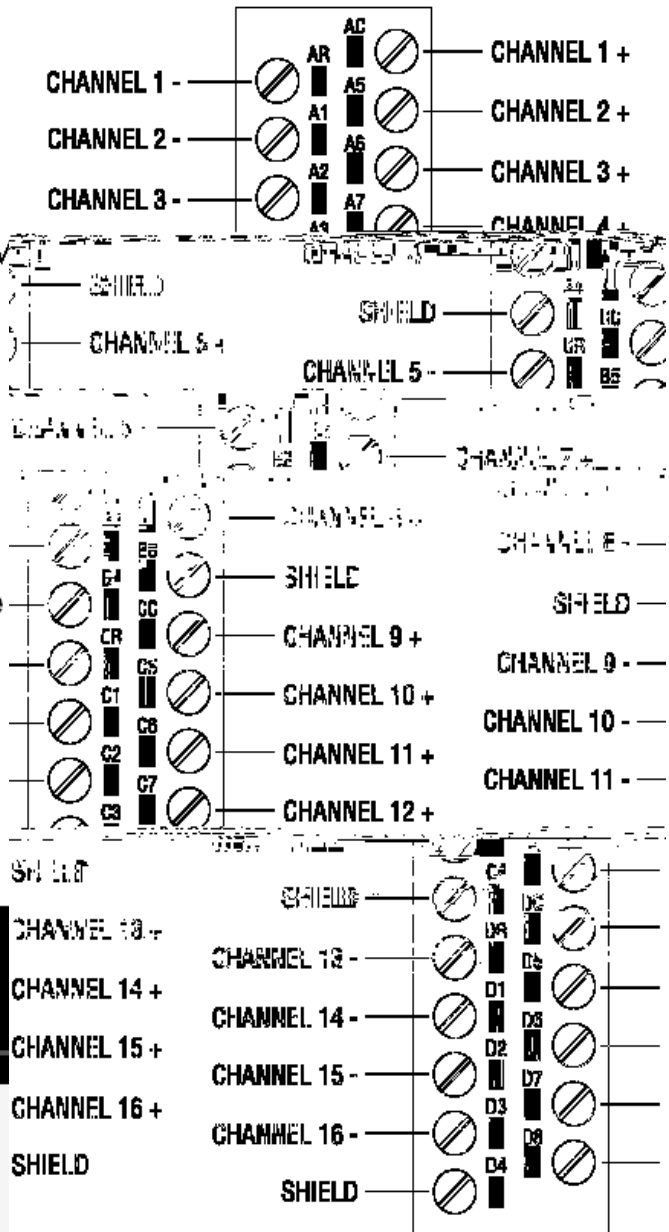
Control Technology Inc.

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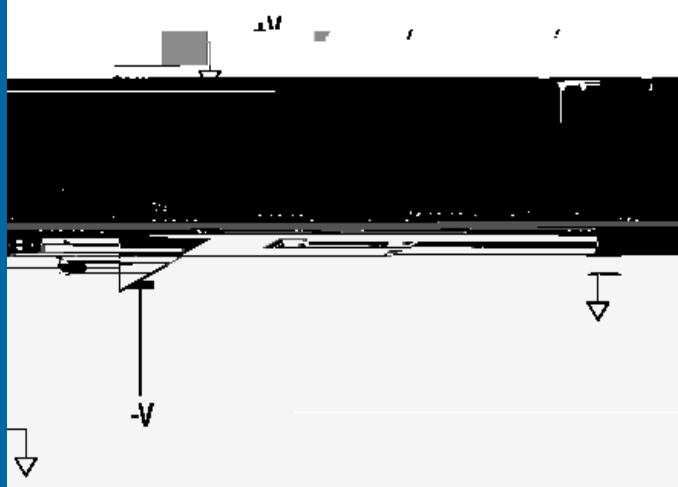
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Typical Internal Circuit - Voltage Mode



2555 Input Connector



Typical Internal Circuit - Current Mode